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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,002	07/08/2003	Kevin Barry Ray	58575-281049	8143

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EXAMINER

FUNK, STEPHEN R

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 09/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,002

Applicant(s)

RAY ET AL.

Examiner

Stephen R Funk

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-25 and 27-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10,11,13-20,22-25 and 27-66 is/are rejected.
- 7) ☒ Claim(s) 9,12 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Art Unit: 2854

The disclosure is objected to because of the following informalities: On page 7 of applicant's amendment, the replacement paragraph to page 14 line 1 should be to page 15 line 6. Note that on page 8 of the amendment is the correct replacement paragraph to page 14 line 1. On page 8 of applicant's amendment, the replacement paragraph to page 14 line 18 should be to page 12 line 18. Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 25, 30, 31, 50, and 52 are rejected under 35 U.S.C. 102(b) as anticipated by Agfa ('462).

Agfa teaches providing a printing plate precursor (page 2 lines 8 - 17) comprising a substrate (page 4 lines 47 and 90) and a negative working oleophilic image layer comprising at least one polymeric material (page 2 lines 109 - 125, page 3 line 126 - page 4 line 17), imagewise contacting the image forming layer with an acid catalyst (page 3 lines 19 - 34, page 3

Art Unit: 2854

line 126 - page 4 line 17), and thermally treating the image forming layer (page 3 lines 48 - 53) so the polymer undergoes sufficient crosslinking (page 2 lines 109 - 115, page 4 lines 2 - 5) to cause the imagewise contacted portions to become less developable in a developer liquid (page 1 line 89 - page 2 line 7). Note that Agfa teaches on page 2 line 16 that the plate precursor may be offset, i.e. planographic or lithographic.

With respect to claim 3 Agfa clearly teaches the polymeric binder.

With respect to claim 4 see page 3 lines 39 - 53.

With respect to claim 25 see page 4 line 1.

With respect to claim 30 see page 5 lines 11 - 14.

With respect to claim 31 see page 1 line 89 - page 2 line 7.

With respect to claim 50 see page 5 lines 7 - 11.

With respect to claim 52 the step of contacting the developer is the same as applying the "solvent" on page 1 line 89 - page 2 line 7.

Claims 5, 6, and 27 - 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa. With respect to claims 5 and 6 Agfa does not teach the percentage of polymeric binder. However, it would have been obvious to one of ordinary skill in the art through routine experimentation to arrive at the recited percentages to achieve the optimum durability and solubility of the image forming layer. With respect to claims 27 - 29 Agfa does not specifically teach the pKa of the sulfonic acid. See page 5 lines 11 - 16. However, it would have been obvious to one of ordinary skill in the art to provide the acid catalyst of Agfa with the recited pKa to optimize the crosslinking of the image forming layer.

Art Unit: 2854

Claims 7, 8, 10, 11, 13 - 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa in view of Graulich et al. (US 2,984,588) and Damme et al. ('838). Agfa refers to Graulich et al. on page 4 lines 15 - 17 for further polymers. Graulich et al. teach providing the image forming layer with phenols. See column 3 lines 19 - 34. Damme et al. teach a similar method including a polymeric binder (e.g. novolak) and crosslinking material (e.g. resole). See paragraphs 80 - 85 of Damme et al., in particular, paragraphs 82 and 85. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with a polymeric binder capable of undergoing a condensation reaction with a polymeric crosslinking material in view of Graulich et al. and Damme et al. so as to provide a more durable image forming layer. With respect to claims 8, 16, and 17 note again the thermal treatment of Agfa. With respect to claims 14 and 15 it would have been obvious to one of ordinary skill in the art through routine experimentation to arrive at the optimum percentage of crosslinking material.

Claims 23, 24, 32 - 36, 38, 39, 47, 48, 51, and 53 - 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa in view of Damme et al. ('838). With respect to claims 23 and 24 Agfa does not teach a colorant in the image forming layer. However, see paragraph 92 of Damme et al. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with a colorant in view of Damme et al. in the recited percentage through routine experimentation to allow easier proofing of the imaged plate. With respect to claims 32 - 36, 38, and 39 Agfa does not teach the specifics of the catalyst mixture. However, see paragraphs 56 - 59 of Damme et al. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with a catalyst and carrier having the recited properties in view of Damme et al. so as to more easily jet the drops to the image forming layer. With respect to claims 47 and 48

Art Unit: 2854

Agfa does not teach an aluminum substrate. Note again that Agfa teaches that the plate may be an offset plate. Damme et al. teach in paragraph 70 an anodized aluminum substrate. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with an anodized aluminum substrate in view of Damme et al. so as to achieve superior hydrophilic properties in the non-image areas of the printing plate. With respect to claim 51 Agfa does not teach an additive in the coating mixture. Damme et al. teach providing a coating mixture with a surfactant in paragraph 91. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with a surfactant in the coating mixture in view of Damme et al. so as to more easily apply the mixture to the substrate. With respect to claims 53 - 56 Agfa does not teach the specifics of the developer. Damme et al. teach the developer as recited in paragraph 103. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with an alkaline developer in view of Damme et al. so as to more readily remove the non-image areas of the image forming layer.

Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa in view of Damme et al. as applied to the claims above, and further in view of Damme et al. ('259). Damme et al. ('838) do not teach treating the aluminum substrate with polyvinylphosphonic acid. However, see paragraph 106 of Damme et al. ('259). It would have been obvious to one of ordinary skill in the art to provide the method of Agfa, as modified by Damme et al. ('838), with a polyvinylphosphonic acid treated substrate in view of Damme et al. ('259) to provide the desired hydrophilicity to the substrate.

Claims 37, 40 - 46, 57, and 62 - 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa in view of Deutsch et al. ('618). With respect to claim 37 Agfa does not

Art Unit: 2854

specifically teach that the catalyst dissolves, disperses, or swells the image forming layer. Deutsch et al. teach that a catalyst should penetrate into the image forming layer. See column 6 lines 50 - 62 of Deutsch et al. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with a dispersing catalyst in view of Deutsch et al. so as to complete the crosslinking reaction. With respect to claims 40 - 46 Agfa does not teach the specific heating and drying steps. Deutsch et al. teach the heating and drying steps as recited. See column 9 lines 48 - 65 and column 8 lines 14 - 15. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with the steps of heating and drying the image forming layer so as to thoroughly complete the crosslinking reaction. With respect to claims 57 and 62 - 66 Agfa does not teach the composition of the developer. Deutsch et al. teach the developer as recited in column 10 lines 37 - 60. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa with the developer of Deutsch et al. so as to provide the desired alkalinity and solvating capability.

Claims 58 - 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Agfa in view of Deutsch et al. as applied to the claims above, and further in view of Akiyama et al. ('724). Agfa and Deutsch et al. do not teach the ratio between the silicon oxide and metal oxide. See column 10 lines 37 - 45 of Deutsch et al. Akiyama et al. teach the ratio as recited. See column 22 line 12+ of Akiyama et al. It would have been obvious to one of ordinary skill in the art to provide the method of Agfa, as modified by Deutsch et al., with the recited silicon oxide to metal oxide ratio in view of Akiyama et al. so as to sufficiently adjust the pH of the developer.

Art Unit: 2854

Claims 9, 12, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

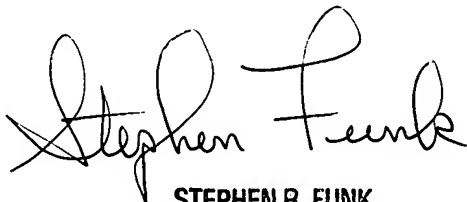
Applicant's arguments with respect to claims 1 and 52 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen R. Funk whose telephone number is (571) 272-2164.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Hirshfeld, can be reached at (571) 272-2168.

The fax phone number for ALL official papers is (703) 872-9306. Upon consulting with the examiner *unofficial* papers only may be faxed directly to the examiner at (571) 273-2164.

SRF
September 23, 2004



STEPHEN R. FUNK
PRIMARY EXAMINER